FACTSHEET

FIELD CROPS

ORDER NO. 01-027

JUNE 2001

AGDEX 100/10

Ontario Ministry of Agriculture, Food and Rural Affairs

ORGANIC FARMING IN ONTARIO

H. Martin

(Replaces Factsheet No. 98-029 "Organic Farming in Ontario")

DEFINING "ORGANIC"

Organic farming is a method of crop and livestock production that involves much more than choosing not to use certain pesticides, fertilizers, genetically modified organisms, antibiotics, and growth hormones which are not permitted by accepted Organic Standards.

Organic agriculture is a holistic system of crop and livestock production designed to optimize the productivity, and fitness of diverse communities within the agroecosystem, including soil organisms, plants, livestock and people. The principle goal of organic agriculture is to develop productive enterprises that are sustainable and harmonious with the environment.

Many organic farmers believe that a successful organic system begins with the soil — a healthy soil produces healthy plants and, in turn, healthy livestock and people. They regard soil as a living organism of inter-dependent processes and life forms.

Organic farming promotes the use of crop rotations and cover crops, and encourages balanced host/predator relationships. Organic residues and nutrients that are produced on the farm are recycled back to the soil. Cover crops and composted manure are used to maintain soil humus. Preventative insect and disease control methods are practiced including the use of crop rotation, improved genetics and resistant varieties. Integrated pest and weed management, and soil conservation systems are also valuable tools on an organic farm. Some "natural" or non-synthetic pesticides may be permitted. These products must be registered for use in the specific crop-pest situation by federal and provincial regulations and allowable for use within the organic crop production standards as specified by the certification body. All grains, forages and protein supplements fed to livestock must be organically grown.

Organic food production prohibits the use of highly soluble or synthetically compounded mineral fertilizers, synthetically compounded pesticides, growth regulators, antibiotics, hormones, colouring or other artificial additives, ionizing radiation, and recombinant genetic manipulation of plants or animals. Prohibited products and practices must not be used on certified organic farms for at least three years prior to harvest of the certified organic products. Livestock must be raised organically and fed 100% organic feeds.

Organic farming presents many challenges. Some crops are more challenging than others to grow organically. However, nearly every commodity can be produced organically. There are successful organic farmers in every county in Ontario producing almost every commodity. There are currently over 600 certified organic farms in Ontario and about 30,000 ha (75,000 acres) of organic production in Ontario. In recent years, these numbers have been growing by about 20% per year.

WHY ORGANIC?

According to a study by Hall and Mogyorody (2000) from University of Windsor, the main reasons farmers grow organically are "concerns about the effects of chemicals on health and the effects of conventional farming on soil quality and conservation". These results are similar to an earlier study done in 1986 by Agriculture Canada.

Organic farming is seen as a growing market with new opportunities. Farmers are concerned about the environment and issues such as water contamination and soil degradation. They are also concerned about the amount of energy used in agriculture, since many farm chemicals have energy intensive manufacturing processes that rely heavily on the use of fossil fuels.

Some farmers view organic farming as part of the solution to meeting the challenges of modern day agriculture. Organic farmers find their method of farming to be profitable and personally rewarding.

"CERTIFIED ORGANIC"

Certified organic is a term given to products produced according to accepted organic standards as certified by one of the certifying bodies. There are currently 5 certification bodies operating in Ontario. A farmer wishing to be certified applies to a certification body and requests an independent inspection of the farm to validate that the organic farm meets

their standards. Farmers, processors and traders are each required to maintain the organic integrity of the product and to maintain a document trail for auditing purposes. Products from certified organic farms are labelled and promoted as certified organic produce. Food products labelled as organic must contain at least 95% organic ingredients and at least 70% organic ingredients to be labeled as "contains organic" ingredients.

The National Standard of Canada for Organic Agriculture was approved in 1999 and is the mandatory standard for Canadian import/export and inter-provincial trade. This standard is not required for domestic trade (within province) but it forms the basis of the individual standard for each certification body in Canada. Each certification body issues standards for organic certification and should be contacted for more specific information. While these standards are similar there are some specific details that may vary. Some certification bodies have adopted additional standards that are appropriate for specific international markets. When comparing certification bodies, make sure they have the certification requirements for the markets you want to serve. Some certification bodies may have accreditation or equivalency agreements with EU (Europe), USDA (U.S.), JAS (Japan), SCC (Canada), or CAQ (Quebec) or other organic certification systems.

The labels may indicate "Certified Organic", "Verified Organic" or "Demeter", depending on the certification agency.

IS IT ECONOMICALLY FEASIBLE?

Farming is never easy. In organic farming, farmers choose not to use some of the convenient chemical tools that are available to other farmers. Management and the design of the production system becomes even more critical to the success of the farm.

Cereal and forage management systems tend to adapt to organic systems quite readily due to relatively low pest pressures and nutrient requirements. Soybeans also adapt quite well but weeds can be a greater challenge. Corn is frequently not grown on organic farms because of the challenges of weed control and fertility, especially nitrogen requirements. It can be successfully grown after a forage legume or if manure has been applied. Markets for organic corn have improved in recent years but the adoption of genetically modified Bt hybrids of corn on conventional farms has created issues of buffer or isolation distance for organic corn and for canola crops. Check with the certification bodies for more details on appropriate buffer distances from conventional and GMO crops. In general cross-pollinated crops such as corn and canola require a much greater distance than self-pollinated crops such as soybeans or cereals.

Yields on each organic crop varies, depending on the success of the manager. During transition from conventional to organic production yields are usually somewhat less than conventional levels, but after a 3 to 5 year transition period, the organic yields increase.

In fruit and vegetable crops, the challenges are greater and vary from crop to crop. Some crops and managers have been very successful, while other farms with the same crop have had significant problems. Certain insect or disease pests are more serious in some areas of the province than in others. Some pest problems are difficult to manage with organic methods. Marketable yields of organic horticultural crops are frequently below non-organic yields. Some of these crops are slightly below and others are significantly lower. Some organic producers have added value to their product with on-farm or small scale processing. An example is to make jams, jellies, juice, etc. It has been estimated that 80% of the processed organic products consumed in Ontario are imported, and this creates some interesting opportunities.

Livestock products can also be produced organically. In recent years, organic dairy products have become popular. Antibiotics, growth hormones, and insecticides are prohibited. If an animal is sick and antibiotics are necessary for the recovery of the animal, antibiotics will be administered. However, the animal will then be segregated from the organic livestock herd and sold from the herd as non-organic stock. Vaccinations are permitted only when diseases cannot be controlled by other means and with the authorization of the certifying body. All genetically modified organisms and substances are prohibited. Artificial insemination is permitted. You should always check with the certifying agency to see if the product or techniques you want to use are allowed. In some provinces, vaccinations are required by law. Provincial or federal law always takes priority over association standards.

ARE PRICE PREMIUMS AVAILABLE?

"Certified organic" produce can usually qualify for higher prices than non-organic products. These premiums vary with the crop and depend on whether you are dealing with a processor, wholesaler, retailer, or directly with the consumer. There is no set premium level and it can be whatever is negotiated between the buyer and the seller. Premiums can vary widely depending on local demand and supply.

Higher prices are necessary to offset the higher production costs (per unit of production) of management, labour, and for lower farm yields. These differences vary with the commodity. Some field crop producers, particularly cereals and forages, report very little change in yield while in some horticultural crops such as tree fruits, significant differences in marketable yield have been observed. There may also be higher marketing costs to develop markets since there is less infrastructure than for many conventional commodities. Currently, demand is greater than supply for many organic products.

There is also a market for organic grains and forages to supply feed for organic livestock producers both in Ontario

and for export. Many organic farms operate with mixed crops and livestock enterprises and only receive premiums for part of their overall production.

WHAT IS THE TRANSITION PERIOD?

The first few years of organic production are the hardest. This is called the "transition period" when both the soil and the manager have to adjust to the new system. Insect and weed populations also adjust to the new system. Due to the unstable nature of the yields and the fact that price premiums are frequently not available because the products do not qualify as "certified organic", cash flow can be a problem. For this reason, some farmers choose to convert to organic production slowly. Carefully prepare a plan for conversion. Try 10%–20% the first year (always pick one of your best fields to start), and then expand your organic acreage when you are more comfortable and confident in your new system. It may take 5–10 years to become totally organic, but in the long run it is more successful than a more rapid conversion, especially when financial restraints are considered. Most certification bodies expect that farmers with parallel production (organic and conventional) will have made a total conversion to organic within 5 years.

At a recent meeting several speakers were asked what were the key reasons for success or failure of organic farm businesses. The most common answer was that the new organic farmer had to change their way of thinking on how to farm when they became organic. For some people, an incident or a change in personal values initiates this transition. For others it is a business opportunity, but to optimize the success of the farm requires an evolution of personal thinking. Some people suggest there needs to be new paradigm of thinking or a redesign of the farm to determine what causes the problem rather than thinking "How do I cure it or kill the pest?"

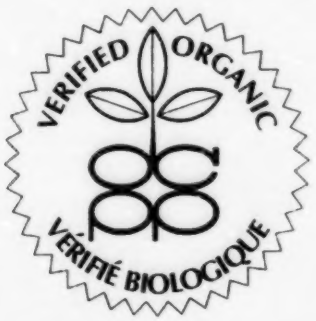
CERTIFICATION BODIES

- OCIA — Organic Crop Improvement Association (Ont. #1) Inc., Executive Director – Ray Rivers,
  445 Mountsberg Rd. R.R.#2
  Campbellville, ON L0P 1B0
  Phone: (905) 659-2069, Fax: (905) 659-2109
  Web site: Ontario: *www.ocia.on.ca/*
  International: *www.ocia.org/*

  OCIA has chapters worldwide (majority in North America). They certify farms according to OCIA standards and use the Certified Organic™ mark. They also produce a newsletter for their members. Below is the Certified Organic logo of OCIA. Other certifying agencies have different logos.

- OCPRO — Organic Crop Producers and Processors Ontario Inc., (OCPP/Pro-Cert Canada Inc.)
  Larry Lenhardt, R.R. #1, 1099 Monarch Rd.,
  Lindsay, ON , K9V 4R1
  Phone: (705) 324-2709, Fax: (705) 324-4829
  E-mail: *ocpp@lindsaycomp.on.ca*
  Web site: *www.ocpro-certcanada.com/*

  OCPP provides organic certification and OCPP/Pro-Cert provides verification services beyond the farm gate for client producers and processors across Canada, USA, Europe and Japan. They use the Verified Organic™ mark for organic certification/verification. Below is the Verified Organic trademark logo of the Organic Crop Producers and Processors Inc. (OCPP).



- Organic Forum International
  Peter Bruce, RR#3, 1280 Merkley Road
  Gravenhurst, ON P1P 1R3
  Tel: (705) 687-2228, Fax: (705) 687-9981
  E-mail: organicforum@sympatico.ca

  OFI certifies farmers, processors , manufacturers and traders in Canada and the USA.

- QAI — Quality Assurance International,
  Canadian office:
  Tomás Nimmo, 115 First St. Suite 450,
  Collingwood, ON L9Y 4W3
  Phone: (705) 443-4444, Fax (705) 444-0380
  E-mail: *organix@georgian.net*
  Web site: *www.qai-inc.com/*

  QAI is a fee for service organization that provides international certification services to mid- to large-sized processors, manufacturers traders and private-labellers. Offices in Ontario, USA, Mexico and Japan.

- SBDFG — Society for Bio-Dynamic Farming and Gardening in Ontario,
  Mr. Cory Eichman, Community Farm,
  RR #4, Bright, ON N0T 1B0
  Tel: (519) 684-6846
  Web site: *members.tripod.com/~biodynamics_ont_info/*

  The B.D. Society certifies growers according to their standards using the certification mark "Demeter" on their products.

SOURCES OF INFORMATION

- COAB — Canadian Organic Advisory Board,
  #610, 910 – 7 Avenue S.W.,
  Calgary, Alberta T2P 3N8
  Phone: (403) 266-1122, Fax (403) 261-3955
  Web site: *www.coab.ca*

  COAB is an advisory organization established to represent organic certifying bodies across Canada to establish organic standards.

- COG — Canadian Organic Growers Inc.,
  P. O. Box 6408, Stn. J, Ottawa, ON K2A 3Y6
  Phone: (613) 231-9047 Fax: (613) 256-4453
  E-mail: *info@cog.ca*
  Web site: *www.cog.ca/*

  COG has chapters in Ottawa, Toronto, Durham Region, Kawartha, Perth-Waterloo-Wellington, Wentworth-Burlington, and Essex-Kent and four others across Canada plus at large members in each province. Eco-Farm & Garden is their quarterly magazine and COG has a lending library with information for the organic industry.

- EAP — Ecological Agriculture Project
  Box 191, Macdonald College, 21111 Lakeshore Road,
  Ste. Anne de Bellevue, PQ H9X 1C0
  Web site: *www.eap.mcgill.ca/index.htm*

  This is a resource centre at Macdonald College (McGill University). They offer a number of services including technical information and literature searches.

- EFAO — Ecological Farmers Association of Ontario,
  Box 127, Wroxeter, ON N0G 2X0
  Phone: (519) 335-3357, Fax: (519) 335-3516
  Web site: *www.gks.com/efao/index.html*

  EFAO is largely an educational group of farmers sharing ideas at meetings and in a newsletter.

- OMAFRA — Ontario Ministry of Agriculture, Food and Rural Affairs
  1 Stone Road W., Guelph, ON N1G 4Y2
  Agricultural Contact Centre 1-877-424-1300
  Web site *www.gov.on.ca/OMAFRA/*
  Agricultural Contact Centre 1-877-424-1300

  Specialists are available to answer questions on various methods of farming.

- Organic Conference
  For the past 20 years a consortium of organic partners has hosted an annual conference at the University of Guelph. The date is usually the last weekend in January. Seminars, Trade show, and lots of opportunities to network with other members of the industry. In recent years attendance has been over 1000 people.

  For information contact:
  Tomás Nimmo, Box 116,
  Collingwood, ON L9Y 3Z4
  Phone: (519) 824-4120 (ext. 2558), Fax (705) 444-0380
  E-mail: *organix@georgian.net*
  Web site: *www.gks.com/OrgConf/*

- REAP — Resource Efficient Agricultural Production,
  Box 125, Maison Glenaladale,
  Ste-Anne-de-Bellevue, PQ H9X 3V9
  Phone: (514) 398-7743, Fax: (514) 398-7972
  E-mail: *reap@interlink.net*
  Web site: *http://www.reap.ca*

  REAP is an independent, non-profit organization that has been working since 1986 with farmers, scientists, non-governmental organizations, and industry, to advance the development of sustainable farming systems.

WEB SITES

The following Web sites are resources you may find useful. There are many other valuable sites depending on your interests. Explore these for information and look for links to other organic sites on the Web.

- Ontario Ministry of Agriculture Food and Rural Affairs *www.gov.on.ca/OMAFRA/english/crops/organic/organic.html*
- Canada's Organic Community — *www.inforganics.com/*
- GaiaOne Knowledge Systems — *www.gks.com/*
- Knives and Forks —*www.organicadvocates.org/*
- British Columbia Certified Organic – *www.agf.gov.bc.ca/foodind/index.htm*
- Nova Scotia Organic information — *www.gov.ns.ca/nsaf-new-site/elibrary/archive/hort/organic/index.htm*
- Table Filière (biologique) du Québec www.agr.gouv.qc.ca/ae/filieres/biologiq/default.htm
- Organic Farms web pages — *www.organicfarms.ca/*
- BD Farming and Gardening Assoc. Home Page — *www.biodynamics.com/*
- International Federation Of Organic Agriculture Movements –*www.ifoam.org/*
- Organic Farmers Marketing Association — *web.iquest.net/ofma/*
- Organic Growers of Michigan — *www.macatawa.org/org/ogm/ogm.html*
- Michigan State Co-op Ext. Organic Apple Spray Program — *www.msue.msu.edu/vanburen/organasp.htm*
- Disease Management Guidelines For Organic Apple Production In Ohio — *www.caf.wvu.edu/kearneysville/organic-apple.htmi#Links*
- National Organic Program — USDA *www.ams.usda.gov/nop/*
- Organic Materials Research Institute — *www.omri.org/*
- Organic Grapes into Wine Alliance — *www.isgnet.com/ogwa/*
- Pest Management at the Crossroads — *www.pmac.net/*
- The Rodale Institute — *www.rodaleinstitute.org/*
- Sustainable Agriculture Network — *www.sare.org/*
- Henry Wallace Institute for Alternative Agriculture — *www.hawiaa.org*
- USDA Alternative Farming Systems Information Center — *www.nal.usda.gov/afsic/*
- U.S. National Sustainable Farming Information Center (ATTRA) — *www.attra.org/*

REFERENCES

- *Journal of Alternative Agriculture.* Institute of Alternative Agriculture, 9200 Edmonston Road, Suite 117, Greenbelt, Maryland, 20770 *www.hawiaa.org*
- *Journal of Sustainable Agriculture.* Haworth Press, 10 Alice Street, Binghamton, New York, 13904-1580 *www.haworthpressinc.com/*
- *Organic Farming.* Lampkin, Nicolas. 1990, Farming Press Books, Ipswich,1P1 1RJ, United Kingdom *www.organic.aber.ac.uk/publications.shtml*
- *Organic Field Crops Handbook.* 2001, Canadian Organic Growers, *www.cog.ca/ofch.htm*
- *Organic Livestock Handbook.* 2000, Canadian Organic Growers. *www.cog.ca/olh.htm*
- *Organic Resource Guide.* 1995, Canadian Organic Growers. *www.cog.ca/*

Hugh Martin is a Weed Management Specialist (Field Crops), Agriculture and Rural Division, OMAFRA, Guelph.

FOR YOUR NOTES

POD
ISSN 1198-712X
Également disponible en français
(commande n° 01-028)